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Remarks

Applicants thank the Examiner for kindly extending Applicant, David Wolf, and his representative, Allison Johnson, the courtesy of a telephone interview on Tuesday, October 3, 2006. The inoperability of Soini et al. and a proposed amendment to claim 1 was discussed. Applicants also thank the Examiner for kindly indicating that claim 70 is allowable.

Claims 1, 24, 38, and 48 have been amended. New claims 71-100 have been added. Support for the amendments to the claims and new claims can be found in general throughout Applicants' Specification and in particular, for example, as follows: claim 1, original claim 24, FIGS. 2, 4-14 and 18, and page 2, lines 14-15, claims 71-83, previously pending claims 2, 6, 13, 16, 17, 19, 22, 52, 57, 58, 61, 62 and 64, respectively, claims 84 and 93, page 17, line 29, claims 85 and 90, page 9, line 27 and page 18, lines 3-5, claims 86 and 91, page 18, lines 8-9, claims 87 and 92, page 18, line 6, claims 88 and 95, page 17, lines 30-page 18, line 8, claim 89, page 9, line 31-page 10, line 2, claim 94, page 18, line 11, claims 96 and 97, page 7, lines 28-29, claim 98, page 13, lines 22-23, claim 99, original claim 1 and FIGS. 4 and 5, claim 100, original claim 2 and page 7, lines 28-29. No new matter has been added. Applicants reserve the right to prosecute claims 1, 24, 38 and 48 in their original form in a continuing application.

Claims 1, 4 and 5 stand rejected under 35 U.S.C. § 102(b) over Soini et al. (U.S. 6,204,068).

Soini et al. disclose a measuring system that includes a laser focused through a lens (2a) and an objective lens (2b) to a cuvette (4), which includes a sample (3) (Soini et al., col. 6, lines 2-10). A fluorescence signal from the sample (3) is directed through a pinhole (6) and dichroic mirrors (7), (8), to detectors (9), (10), (11), which are connected to a signal processor (12) (*Id.*, lines 10-14). The processor handles the correlation calculations and the results are processed in a computer (13) (*Id.*, lines 14-17).

Claim 1 is now directed at a portable fluorescence correlation spectroscopy instrument that includes a sample flow chamber, an excitation source, a first dichromatic mirror positioned to reflect light from the excitation source, at least one light focusing element positioned to receive light emitted by the excitation source, and a detector for detecting light. The detector is positioned to receive light emitted by a sample excited by

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the excitation source and a correlator coupled to the detector, the correlator for processing data received at the detector and providing data including autocorrelation data, crosscorrelation data, or a combination thereof. As a preliminary matter, Applicants note that Soini et al. is not operable. Soini et al. disclose that light from a laser passes through lens 2a. Laser light is emitted in the form of parallel rays. The rays of light that pass through 2a are depicted as being in parallel (see Soini et al., FIG. 1). Therefore lens 2a is a light collimator (i.e., rays exit the element in parallel); lens 2a is not a light focusing element. As such, the rays of light that reach aperture 6 will be out of focus, very little light will pass through aperture 6, and there will be no depth discrimination. Data cannot be obtained if the light at 6 is out of focus. Depth discrimination is essential for fluorescence correlation spectroscopy instruments. Soini et al. thus fail to enable a fluorescence correlation spectroscopy instrument. For this reason alone Soini et al. fail to teach the instrument of claim 1 and the rejection of claim 1 under 35 U.S.C. § 102(b) over Soini et al. is unwarranted.

The Soini et al. reference is further deficient for at least the following additional reasons. Soini et al. do not teach a portable fluorescence correlation spectroscopy instrument. Soini et al. also do not teach a fluorescence correlation spectroscopy instrument that includes a dichromatic mirror positioned to reflect light from the excitation source. Rather, Soini et al. disclose a mirror (5) that transmits light from the excitation source. The mirror (5) of Soini et al. does not reflect light from the excitation source (1). Applicants submit, therefore, that the rejection of claim 1 under 35 U.S.C. § 102(b) over Soini et al. has been overcome and respectfully request that it be withdrawn.

Claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64 stand rejected under 35 U.S.C. § 103 over Soini et al. (US 6,204,068).

To establish a *prima facie* case of obviousness based on a combination of elements disclosed in the prior art, an Office action must set forth the basis on which the conclusion that it would have been obvious to make the claimed invention was reached. In particular, the statement in support of a rejection must explain the rejection with reasonable specificity; in the absence of such specificity, the Office action is deemed to have failed to establish a *prima facie* case of obviousness. *Ex Parte Blanc*, 13 U.S.P.Q.2d 1383 (Bd. Pat. App. & Inter. 1989). When the motivation to combine the teachings of the

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references is not immediately apparent, it is the duty of the Examiner to explain why the combination of the teachings is proper. *Ex Parte Skinner*, 2 U.S.P.Q.2d 1788 (Bd. Pat. App. & Inter. 1986). This requires that the Office action include an analysis of both the scope and content of the prior art and the level of ordinary skill in the pertinent art, and “[an explanation of] the reasons one of ordinary skill in the art would have been motivated to select the references and combine them in such a manner so as to render the claimed invention obvious.” *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006) quoting *In re Rouffet*, 149 F.3d at 1357-59. Applicants submit that the statements in the August 14th Office action do not explain how Soini et al. is being modified, which references are being used to modify the Soini et al. reference or where in the references there is a teaching, suggestion or motivation to modify the system of Soini et al. to achieve the instrument of claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64. Applicants thus have not been provided proper notice as to the basis on which the conclusion of obviousness of claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64 has been reached. Applicants submit, therefore, that a *prima facie* case of obviousness of claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64 has not been made. Accordingly Applicants respectfully request that the rejection of claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64 under 35 U.S.C. § 103 over Soini et al. be withdrawn. Should this rejection be maintained, Applicants respectfully request clarification as to the identity of the prior art reference(s) being applied against claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64, the manner in which a prior art reference is being applied against claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64, and identification, by reference to column and line number, of the location of a teaching, suggestion or motivation in the prior art reference(s) to modify the system of Soini et al. to achieve the instrument of each of claims 2-3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64.

Applicants further respectfully expressly traverse the basis cited in the August 14th Office action in support of the rejection of claims 2-3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64 under 35 U.S.C. § 103 over Soini et al. The August 14th Office action indicates that “Official Notice” is being taken to establish the alleged obviousness of claims 2-3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64. Official Notice unsupported by documentary evidence should only be taken where the facts asserted to be well-known, or

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to be common knowledge in the art, are capable of instant and unquestionable demonstration as being well-known. *Id.*; see also *In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420 (CCPA 1970) and *In re Knapp Monarch Co.*, 296 F.2d 230, 132 U.S.P.Q. 6 (CCPA 1961)). If such notice is taken, the basis for such reasoning must be set forth explicitly. M.P.E.P. 2144.03B. In particular, the Office action must include specific factual findings predicated on sound technical and scientific reasoning to support the conclusion of common knowledge. M.P.E.P. 2144.03B citing *Soli*, 317 F.2d at 946, 37 U.S.P.Q. at 801; *Chevenard*, 139 F.2d at 713, 60 U.S.P.Q. at 241. The Office action also must point to some concrete evidence in the record in support of the asserted findings to satisfy the substantial evidence test. If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the Examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2); see also M.P.E.P. 2144.03B (If "common knowledge" is being relied upon, there must be some form of evidence in the record to support an assertion of common knowledge) referencing *In re Lee*, 277 F.3d at 1344-45, 61 U.S.P.Q.2d at 1434-35 (Fed. Cir. 2002); *Zurko*, 258 F.3d at 1386, 59 U.S.P.Q.2d at 1697. Here, there is no evidence in the record establishing the basis on which the Examiner takes Official Notice. In particular, nothing in the record establishes a teaching, a suggestion or a motivation to modify the system of Soini et al. to achieve the instrument of claims 2-3, 6-9, 11-24, 38, 48-52, 57-58 or 61-64. Should this rejection be maintained, Applicants again respectfully request that the next action include evidence establishing that the components referred to in claims 2, 3, 6-9, 11-24, 38, 48-52, 57-58 and 61-64, as well as their relationship to one another, are well known in the art.

There being no further rejections of record, Applicants submit that the application is in condition for allowance and respectfully requests an indication as to the same. Applicants invite the Examiner to telephone the undersigned should a teleconference interview facilitate prosecution of the above-captioned application.

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Please charge any additional fees that may be required or credit any overpayment made to Deposit Account No. 501,171.

Respectfully submitted,

Date: November 2, 2006


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